



**Massachusetts Department of Environmental Protection**  
Bureau of Resource Protection – Residuals Management Program  
Residuals Facility Design Approvals

## **BRP WP 35**

### **Approval of Design Plans and Specifications for Residuals Treatment Facilities**

## **Instructions and Supporting Materials**

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- DEP addresses and phone numbers

#### **Introduction**

DEP *Permit Applications*, as well as *Instructions & Support Materials*, are available for download from the DEP Web site at [mass.gov/dep](http://mass.gov/dep) in two file formats: Microsoft Word™ and Adobe Acrobat PDF™. Either format allows documents to be printed.

*Instructions & Support Materials* files in Microsoft Word™ format contain a series of documents that provide guidance on how to prepare a permit application. Although we recommend that you print out the entire package, you may choose to print specific documents by selecting the appropriate page numbers for printing.

*Permit Applications* in Microsoft Word™ format must be downloaded separately. Users with Microsoft Word™ 97 or later may complete these forms electronically.

Permitting packages in Adobe Acrobat PDF™ format combine *Permit Applications* and *Instructions & Support Materials* in a single document. Adobe Acrobat PDF™ files may only be viewed and printed without alteration. *Permit Applications* in this format may not be completed electronically.



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# **Permit Fact Sheet**

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#### **1. What is the purpose of this approval?**

Approval for design plans and specifications for wastewater residuals management treatment facilities is required pursuant to the legislative authority as stated in Massachusetts General Laws, Chapter 21, s. 27 and 43(2); Chapter 83, s. 6 and 7; and Chapter 14, s. 17; and 314 CMR 12.00.

This approval serves to protect the public health, welfare, and environment by ensuring the proper design of treatment facilities such as composting, pelletizing, and alkaline stabilization. These facilities must be properly designed and operated to ensure continuous treatment of sludge and other residuals and allow for subsequent beneficial use of the final products generated.

#### **2. Who must apply?**

Any individual, commercial establishment or business that proposes to design and construct facilities for the purposes of treating residuals generated from commercial and municipal wastewater treatment facilities.

#### **3. What other requirements should be considered when applying for this approval?**

##### **a. What prerequisites should be considered when applying for this approval?**

Ownership of the property and any restrictive covenants on the land should be determined. The extent of any property use restrictions should also be determined to site a facility. Authority must be obtained from all parties with ownership of, or rights to the property.

Identification should be made of all local abutters and the approximate distance from the proposed facility to those receptors. Caution should be exercised to identify an acceptable buffer area to minimize odor migration and potential impacts on nearby receptors.

Permits of this type may require MEPA review. Please carefully examine 301 CMR 11.00, the MEPA Regulations, to determine if your project exceeds the MEPA review thresholds, or for more information contact the MEPA Unit of the Executive Office of Environmental Affairs (100 Cambridge Street, Boston, MA 02202; (617-727-5830). DEP cannot complete technical review of the permit application until the MEPA process has been concluded. Copies of MEPA filings (with reference to any applicable Transmittal numbers) should be sent to the appropriate program offices in Boston and the MEPA Coordinator in the appropriate Regional Office.

##### **b. What concurrent applications are related to this approval?**

A site hearing may be required pursuant to M.G.L. Chapter 21, Section 21-43 or Chapter 83, Section 6 and 7 after submission of design plans and after completion of the MEPA process but prior to final DEP approval of plans and specifications.

Depending on site location and facility design, a Wetland Order or Conditions (310 CMR 10.00), or Air Quality permit (310 CMR 7.00) may be required.

Notification and submittal of process flow schematic is required to the wastewater operator certification board (257 CMR 2.0) for any new facilities and significant operational changes to existing facilities.



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Note: These additional requirements are intended to serve as a guide to the applicant. It does not necessarily include all requirements.

#### **4. What is the application fee for this approval?**

The application fee is \$4,355.

#### **5. What is the Primary Permit Location? What is the Reserve Copy Location?**

Primary Permit Location:

Reserve Copy Location:

Department of Environmental Protection

None.

\_\_\_\_\_ \* Regional Office

Water Pollution Control

\*See "Addresses and Phone Numbers" page included in this package.

#### **6. What are the timelines?**

As of July 1, 1992, the timelines are:

	AC	T1	T2*	PC
BRP WP 35	30	150	150	90

\*(A second technical review will be conducted only if necessary).

#### **7. What is annual compliance fee?**

Current annual compliance fees can be found on the DEP Website at  
[www.mass.gov/dep/files/permits/fees.htm](http://www.mass.gov/dep/files/permits/fees.htm).

#### **8. How long is the approval in effect?**

This approval shall remain in effect for as long as the residual composting or pelletizing facility is operated in compliance with the original approval. A new application form must be submitted for any substantive changes in site, design, or operation of the facility.

#### **9. How can I avoid the most common mistakes made in applying for this approval?**

- Provide all information detailed on the checklist for submittals of conceptual approval including site evaluation criteria and engineering report items.
- Provide all detailed engineering drawings and specifications for final approvals.
- Make sure a Massachusetts Registered Professional Engineer stamps and signs all submittals for design approvals.
- Submit the fee and one copy of the DEP Transmittal Form to: Department of Environmental Protection, P.O. Box 4062, Boston, MA 02201.



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### **10. What are the regulations that apply to this approval? Where can I get copies?**

The regulations include, but are not limited to:

- a. Operation and Maintenance and Pre-Treatment Standards for Wastewater Treatment Works and Indirect Discharges, 314 CMR 12.00.
- b. Timely Action and Fee Provisions, 310 CMR 4.00.
- c. Administrative Penalty Regulations, 310 CMR 5.00.

They may be purchased at:

State House Bookstore  
Room 116  
Boston, MA 02133  
617-727-2834

State House West Bookstore  
436 Dwight Street  
Springfield, MA 01103  
413-784-1376



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## **Guidance**

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Submittals for Approval:

#### **A. Site Evaluation Report**

1. Project Name, Address, Owner.
2. Type of facility.
3. Total area of project including buffer zones.
4. Locus Map:
  - a. site boundaries;
  - b. access roads.
5. Site plans showing:
  - a. Water Resources:
    - location of wetlands;
    - surface waters;
    - perennial streams draining to surface drinking water supplies;
    - all 100 year floodplains;
    - all private wells within ½ mile;
    - all public wells within ½ mile;
    - all interim wellhead protection areas or Zone II.
  - b. Land Use Plan:
    - all wildlife management areas;
    - areas of critical environmental concern;
    - active agricultural land;
    - residential dwellings within 500 feet;
    - occupied commercial buildings within 500 feet;
    - sensitive receptors within ½ mile (hospitals, schools, nursing homes, prisons);
    - all proposed waste handling areas on site;
    - all proposed waste deposition areas;
    - all buildings and other facilities proposed on site;
    - all abutting properties and their zoning designation;
6. Surrounding Site Description.
7. Facility Description with Locus Map:
  - a. proposed site boundaries;
  - b. access roads.



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8. Description of Potential Traffic Impacts:

- a. number and type estimated;
- b. peak traffic periods;
- c. problem areas (back-ups at intersections);
- d. mitigation measures;
- e. alternative routes.

9. Air Quality Impacts Description.

10. Potential for Nuisance Conditions:

- a. identify the type of nuisance and mitigation measures to be employed.

11. Applicability of MEPA Regulations.

#### **B. Engineering Report**

An engineering report shall be submitted for all projects involving sewage treatment and disposal systems. The purpose of this report is to present in clear, concise form a description of the project, the results of site evaluations, solutions examined, the basis of design of the recommended systems, and the potential associated environmental and public health impacts. The report shall be written for easy public understanding, and serve as a permanent summary of the principle information needed by the Department for conceptual approval of the project. Data on the structural, mechanical, electrical, and HVAC designs may be excluded at this point of project development except that reference to such elements shall be made as necessary to understand the functional operation of the proposed systems.

The engineering report shall include, at a minimum, the following items:

- owner name and address;
- a detailed description of the project;
- all pertinent data concerning relevant local, state and federal permits, approvals, orders of conditions and variances;
- a description of the geographic location and setting of the project including a locus map and preliminary site plan at an appropriate scale;
- a description of the geology, hydrology and topography with an appropriate plan showing key features, surface drainage and contours of the project site;
- the location of all public and private water supply wells, springs, surface reservoirs including tributaries, and other features of public health significance within ½ mile of the project site;
- a delineation of all wetlands resource area (as defined in 310 CMR 10.00) within the project boundaries and/or within 100 feet of any proposed construction activity;



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- an explanation of the relationship between the point of generation of sludge and the proposed treatment facility;
- a description of the various locations within the project site available for sludge treatment, storage, and disposal and the reasons for choosing the one recommended;
- an identification of the proximity of residences or developed areas to the treatment, storage and disposal areas;
- a discussion of the type of treatment and disposal, processes studies, and the reasons for choosing the recommended alternative;
- a complete description of the basis of design of the treatment and disposal systems, including the quantity and quality of residuals to be treated and proposed method of disposal, mass balances and moisture calculations, c/n ratios, air and water requirements, storage capacity required, etc.;
- a description of all major unit processes giving capacity, equipment type and operation factors under varying conditions, and method of operation;
- schematic drawings on standard sized blue prints (24" x 36") to include residuals stream piping, unit operations, instrumentation, material storage areas, etc.;
- a complete description/discussion of the proposed use or disposition of the final product generated;
- detailed discussion of odor abatement facilities and/or contingency plans for odor abatement, if necessary;
- a discussion of the degree and type of treatment and adequacy for present and future needs;
- a general layout and materials flow diagram must be provided;
- the results of all site testing and evaluations including the location and logs for all soil tests, borings and groundwater observation wells if applicable.
- Detailed engineering drawings and specifications, and descriptions of the treatment facility components including:
  - a. civil;
  - b. sanitary;
  - c. structural;
  - d. electrical;
  - e. mechanical;
  - f. HVAC;
  - g. operation and maintenance manual;
  - h. monitoring plan.



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# **Application Completeness Checklist**

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- ☐ The DEP Transmittal Form has been completed. If municipality, "Fee Exempt" has been selected from among the Special Provisions under Section F of the Transmittal Form.
- ☐ All material on the "Submittals for Approval" list has been submitted.
- ☐ Detailed engineering drawings and specifications for final approvals have been submitted.
- ☐ A Massachusetts Registered Professional Engineer has stamped and signed all submittals for design approvals.

To submit the application package:

- ☐ All appropriate application materials have been submitted.
- ☐ Send a copy of the application package along with one copy of the DEP Transmittal Form to:

Department of Environmental Protection  
\_\_\_\_\_ \* Regional Office  
Water Pollution Control

\*See "Addresses and Phone Numbers" page included in this package.

- ☐ Send fee of \$4,355 for BRP WP 35 in the form of a check or money order, made payable to Commonwealth of Massachusetts, along with one copy of the DEP Transmittal Form to:

Department of Environmental Protection  
P.O. Box 4062  
Boston, MA 02211





# Massachusetts Department of Environmental Protection

# Addresses and Phone Numbers

DEP Boston  
One Winter Street  
Boston, MA 02108  
Telephone: (617) 292-5500  
Fax: (617) 556-1049  
TDD: (617) 574-6868

William X. Wall Experiment Station  
37 Shattuck Street  
Lawrence, MA 01843  
Fax: (978) 688-0352  
*Division of Environmental Analysis*  
Telephone: (978) 682-5237  
*Air Quality Surveillance*  
Telephone: (978) 975-1138

Division of Watershed Management  
627 Main Street  
Worcester, MA 01608  
Telephone: (508) 792-7470  
Fax: (508) 791-4131

DEP Western Region  
436 Dwight Street  
Suite 402  
Springfield, MA 01103  
Phone: (413) 784-1100  
Fax: (413) 784-1149



Adams	Colrain	Hampden	Monroe	Pittsfield	Tyringham
Agawam	Conway	Hancock	Montague	Plainfield	Wales
Alford	Cummington	Hatfield	Monterey	Richmond	Ware
Amherst	Dalton	Hawley	Montgomery	Rowe	Warwick
Ashfield	Deerfield	Heath	Monson	Russell	Washington
Becket	Easthampton	Hinsdale	Mount Washington	Sandisfield	Wendell
Belchertown	East Longmeadow	Holland	New Ashford	Savoy	Westfield
Bernardston	Egremont	Holyoke	New Marlborough	Sheffield	Westhampton
Blandford	Erving	Huntington	New Salem	Shelburne	West Springfield
Brimfield	Florida	Lanesborough	North Adams	Shutesbury	West Stockbridge
Buckland	Gill	Lee	Northampton	Southampton	Whately
Charlemont	Goshen	Lenox	Northfield	South Hadley	Wilbraham
Cheshire	Granby	Leverett	Orange	Southwick	Williamsburg
Chester	Granville	Leyden	Otis	Springfield	Williamstown
Chesterfield	Great Barrington	Longmeadow	Palmer	Stockbridge	Windsor
Chicopee	Greenfield	Ludlow	Pelham	Sunderland	Worthington
Clarksburg	Hadley	Middlefield	Peru	Tolland	

DEP Central Region  
627 Main Street  
Worcester, MA 01608  
Phone: (508) 792-7650  
Fax: (508) 792-7621  
TDD: (508) 767-2788



Acton	Chanton	Hopkinton	Millbury	Rutland	Uxbridge
Ashburnham	Clinton	Hubbardston	Millville	Shirley	Warren
Ashby	Douglas	Hudson	New Braintree	Shrewsbury	Webster
Athol	Dudley	Holliston	Northborough	Southborough	Westborough
Auburn	Dunstable	Lancaster	Northbridge	Southbridge	West Boylston
Ayer	East Brookfield	Leicester	North Brookfield	Spencer	West Brookfield
Barre	Fitchburg	Leominster	Oakham	Sterling	Westford
Bellingham	Gardner	Littleton	Oxford	Stow	Westminster
Berlin	Grafton	Lunenburg	Paxton	Sturbridge	Winchendon
Blackstone	Groton	Marlborough	Pepperell	Sutton	Worcester
Bolton	Harvard	Maynard	Petersham	Templeton	
Boxborough	Hardwick	Medway	Phillipston	Townsend	
Boylston	Holden	Mendon	Princeton	Tyngsborough	
Brookfield	Hopedale	Milford	Royalston	Upton	

DEP Southeast Region  
20 Riverside Drive  
Lakeville, MA 02347  
Phone: (508) 946-2700  
Fax: (508) 947-6557  
TDD: (508) 946-2795



Ablington	Danmouth	Freetown	Mattapoisett	Provincetown	Tisbury
Acushnet	Dennis	Gay Head	Middleborough	Raynham	Truro
Attleboro	Dighton	Gosnold	Nantucket	Rehoboth	Wareham
Avon	Duxbury	Halifax	New Bedford	Rochester	Wellfleet
Barnstable	Eastham	Hanover	North Attleborough	Rockland	West Bridgewater
Berkley	East Bridgewater	Hanson	Norton	Sandwich	Westport
Bourne	Easton	Harwich	Norwell	Scituate	West Tisbury
Brewster	Edgartown	Kingston	Oak Bluffs	Seekonk	Whitman
Bridgewater	Fairhaven	Lakeville	Orleans	Sharon	Wrentham
Brockton	Fall River	Manfield	Pembroke	Somerset	Yarmouth
Carver	Falmouth	Marion	Plainville	Stoughton	
Chatham	Foxborough	Marshfield	Plymouth	Swansea	
Chilmark	Franklin	Mashpee	Plympton	Taunton	

DEP Northeast Region  
One Winter Street  
Boston, MA 02108  
Telephone: (617) 654-6500  
Fax: (617) 556-1049  
TDD: (617) 574-6868



Amesbury	Chelmsford	Hingham	Merrimac	Quincy	Wakefield
Andover	Chelsea	Holbrook	Methuen	Randolph	Walpole
Arlington	Cohasset	Hull	Middleton	Reading	Waltham
Ashland	Concord	Ipswich	Millis	Revere	Watertown
Bedford	Danvers	Lawrence	Milton	Rockport	Wayland
Belmont	Dedham	Lexington	Nahant	Rowley	Wellesley
Beverly	Dover	Lincoln	Natick	Salem	Wenham
Billerica	Dracut	Lowell	Needham	Salisbury	West Newbury
Boston	Essex	Lynn	Newbury	Saugus	Weston
Boxford	Everett	Lynnfield	Newburyport	Sherborn	Westwood
Braintree	Frammingham	Malden	Newton	Somerville	Weymouth
Brookline	Georgetown	Manchester-By-The-Sea	Norfolk	Stoneham	Wilmington
Burlington	Gloucester	Marblehead	North Andover	Sudbury	Winchester
Cambridge	Groveland	Medfield	North Reading	Swampscott	Winthrop
Canton	Hamilton	Medford	Norwood	Tewksbury	Woburn
Carlisle	Haverhill	Melrose	Peabody	Topsfield	